Notice of Allowability	Application No.	Applicant(s)	
	10/644,824	SHIROISHI, YOSHIHIRO	
	Examiner	Art Unit	
	Tianjie Chen	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *Amendment filed on 06/15/2006*.

2. ☒ The allowed claim(s) is/are *4 and 6-25*.

3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☒ All b) ☐ Some* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☒ Certified copies of the priority documents have been received in Application No. *09/377,189* .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date *20060614* .
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

TIANJIE CHEN
PRIMARY EXAMINER

REASONS FOR ALLOWANCE

1. The following is an examiner's statement of reasons for allowance:

- With regard to independent claims 4 and 14, as the closest reference on record, a combination of Crue et al (US 6,043,959), Hong et al (US 6,423,430), Han et al (US 6,024,886), Cai (US 6,191,911), and Sedlmayr et al (US 5,761,166) discloses a magnetic recording and reading device having a data transfer rate of more than 50 MB/s and a recording density of more than 5 Gb/ in^2, which including a magnetic recording medium having a substrate and a-at least one magnetic recording layer formed above the substrate; a magnetic head; **but fails to show** that the magnetic head is enabling the data transfer rate of more than 50 MB/s and the recording density of more than 5 Gb/ in^2 on the magnetic medium; **the combination further shows**: the magnetic head comprising a recording head having a magnetic core with a magnetic core length l_1 of not more than 35 μm and having a resistivity of more than 50μΩcm, and a reading head provided with a read element having a track width of not more than 0.9 μm; and a R/W-IC; wherein the at least one magnetic layer contains (1) at least one metal element selected from a first group consisting of Co, Fe and Ni as a primary component, (2) at least two elements selected from a second group consisting of Cr, Mo, W, V, Nb, Ta, Ti, Zr, Hf, Pd, Pt, Rh, Ir and Si, and (3) at least one element selected from a third group consisting of La, Ce, Pr, Nd, Pm, Sm, Eu, Gd, Td, Dy, Ho, Er, Tm, Yb, Lu, Bi, Sb, Pb, Sn, Ge and B, said at least one element selected from the third group being in an amount of 0.1 to 15 atomic %, **but fails to show** that the layer is a recording layer.

- With regard to independent claim 18, as the closest reference on record, a combination of Crue et al (US 6,043,959), Hong et al (US 6,423,430), Han et al (US 6,024,886), Cai (US 6,191,911), and Sedlmayr et al (US 5,761,166) discloses a magnetic recording and reading device includes: a magnetic recording medium having a substrate and a thin magnetic layer formed above the substrate; a magnetic head having a recording head and a reading head; and a RW-IC; wherein the recording head has an upper magnetic core and a lower magnetic core with a magnetic core length 11 is of not more than 35 μm; wherein said-the reading head has a read element having a track width of not more than 0.9 μm, wherein a data transfer rate of the device is more than 50MB/s, and a recording density is more than 5Gb/in^2; **but fails to show** that the absolute value of normalized noise coefficient per recording density of the magnetic recording medium is not more than 2.5 X 10^{-8}(μVrms)(inch)$^{0.5}$(μVpp).
- Applicant asserts: this invention reduces effective head volume still having high-speed positioning. In addition, in order to shorten access time and ensure positioning with a higher accuracy, is especially effective to position the head by a rotary actuator method in at least two stages of coarse and fine movement adjustments (Specification, p. 16).

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tianjie Chen whose telephone number is 571-272-7570. The examiner can normally be reached on 8:00-4:30, Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen can be reached on 571-272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TIANJIE CHEN
PRIMARY EXAMINER